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State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Water Rights

KENT L. JONES
State Engineer/Division Director

November 2, 2009

Logan Island Irrigation Company
C/o Kim Anderson
265 East 200 South
Logan, UT 84321

RE: SEAA No. 1290, Measuring flumes, Logan Island No. 1 and 6&7

Dear Mr. Anderson:

The purpose of this letter is to summarize our review of the work performed this year on the measuring flumes as required by state law and described under SEAA 1290.

The steel ramp flume installed on the Logan Island No. 1 ditch was inspected and appears to perform adequately. This flume may require some minimal annual cleaning and maintenance in order to remain accurate.

The 2-foot concrete ramp flume on Logan Island No. 6&7 ditch was inspected after the water was turned out at the end of the season. Based on our inspection, it appears the flume should function properly. However, without observing it in operation, we cannot fully verify its performance at this time. We plan to conduct another inspection when the flume is operational next irrigation season. My main concern is the uncertainty of how the upstream and downstream pipelines influence the normal operation of the flume. Enclosed is a rating table based on flume geometry and normal channel flow conditions. Slight changes can be made to this table, if needed, after observing the actual flume operation. Large deviations from this table or large fluctuations in the water level could indicate problems with the flume/channel configuration and require future modification.

If you have questions, please feel free to call me at (801) 538-7469.

Sincerely,

Ben L. Anderson, P.E.
Water Rights Distribution Engineer
Utah Division of Water Rights

Enclosure

cc: Will Atkin, Regional Engineer
Colleen Gnehm, Water Commissioner

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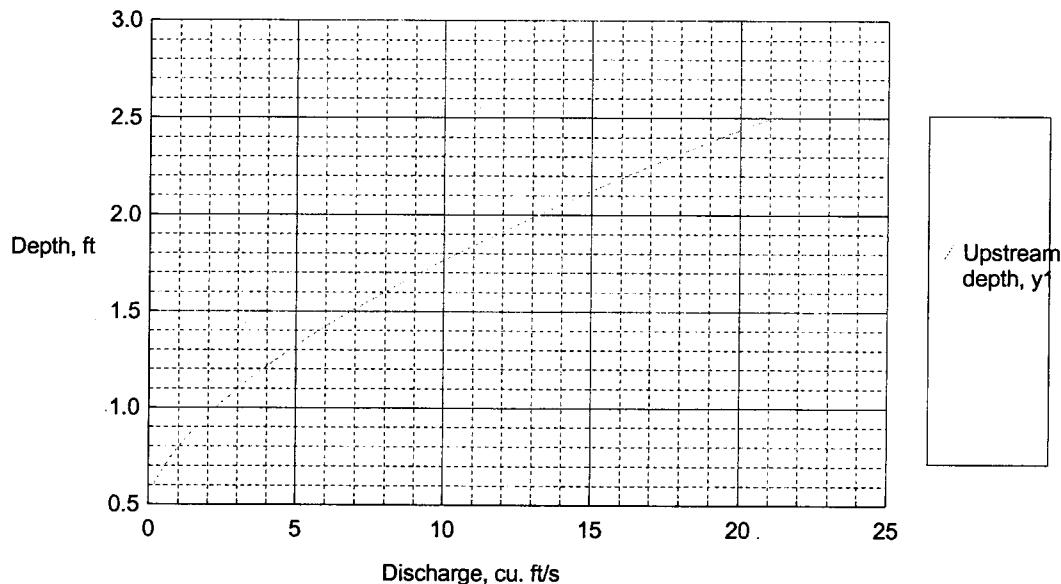


Logan Island Ditch No. 6&7

Logan Island No. 6&7 2' Ramp Flume Rating Table -- Not yet verified. Geometry: 2 ft approach, 3.5 ft ramp, 1.5 ft crest at 0.5 ft height.

Gage Reading	0	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	Head, h1 feet
0.6	*0.1841	*0.2139	*0.2453	*0.2781	*0.3123	*0.3479	*0.3848	*0.4229	*0.4624	*0.5030	0.1
0.7	*0.5449	*0.5880	*0.6322	*0.6776	*0.7241	*0.7718	*0.8205	*0.8703	*0.9212	*0.9731	0.2
0.8	*1.0261	*1.0801	*1.1352	*1.1912	*1.2483	*1.3063	*1.3653	*1.4254	*1.4823	*1.5398	0.3
0.9	*1.6019	*1.6650	*1.7290	*1.7939	*1.8597	*1.9265	*1.9942	*2.0627	*2.1321	*2.2024	0.4
1	*2.2736	*2.3456	*2.4186	*2.4923	*2.5670	*2.6425	*2.7188	*2.7960	*2.8740	*2.9528	0.5
1.1	*3.0325	*3.1130	*3.1943	*3.2764	*3.3594	*3.4431	*3.5277	*3.6130	*3.6992	*3.7861	0.6
1.2	*3.8739	*3.9624	*4.0516	*4.1417	*4.2325	*4.3241	*4.4165	*4.5096	*4.6035	*4.6982	0.7
1.3	*4.7936	*4.8897	*4.9867	*5.0843	*5.1827	*5.2818	*5.3817	*5.4823	*5.5836	*5.6857	0.8
1.4	*5.7885	*5.8920	*5.9962	*6.1011	*6.2069	*6.3134	*6.4207	*6.5287	*6.6373	*6.7467	0.9
1.5	*6.8568	*6.9676	*7.0790	*7.1912	*7.3041	*7.4176	*7.5319	*7.6468	*7.7624	*7.8787	1
1.6	*7.9956	*8.1133	*8.2316	*8.3506	*8.4702	*8.5905	*8.7115	*8.8332	*8.9555	*9.0784	1.1
1.7	*9.2021	*9.3263	*9.4513	*9.5768	*9.7030	*9.8299	*9.9575	*10.0856	*10.2145	*10.3439	1.2
1.8	*10.4740	*10.6047	*10.7361	*10.8681	*11.0008	*11.1340	*11.2679	*11.4024	*11.5376	*11.6733	1.3
1.9	*11.8097	*11.9467	*12.0844	*12.2226	*12.3615	*12.5009	*12.6410	*12.7817	*12.9230	*13.0649	1.4
2	*13.2074	*13.3505	*13.4943	*13.6386	*13.7835	*13.9291	*14.0752	*14.2219	*14.3692	*14.5170	1.5
2.1	*14.6655	*14.8146	*14.9643	*15.1146	*15.2654	*15.4168	*15.5689	*15.7214	*15.8746	*16.0284	1.6
2.2	*16.1827	*16.3376	*16.4931	*16.6491	*16.8058	*16.9630	*17.1207	*17.2791	*17.4380	*17.5974	1.7
2.3	*17.7575	*17.9181	*18.0792	*18.2410	*18.4032	*18.5661	*18.7295	*18.8934	*19.0580	*19.2230	1.8
2.4	*19.3887	*19.5548	*19.7216	*19.8888	*20.0567	*20.2250	*20.3940	*20.5634	*20.7334	*20.9040	1.9
2.5	*21.0751	--	--	--	--	--	--	--	--	--	2

Logan Island 6&7 - Revision 22



---Compiled by Ben Anderson, Utah Div of Water Rights, using USBR WinFlume program 10-2009.

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